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|--|-------------|----------------------|---------------------|------------------|
| 10/537,748 | 06/06/2005 | Kohei Yoshida | 123546 | 5450 |
| 25944 7590 09/16/2009 OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850 | | | | |
| EXAMINER | | | | |
| TRAN, DIEM T | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 3748 | | | | |
| MAIL DATE | | DELIVERY MODE | | |
| 09/16/2009 | | PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/537,748

Applicant(s)

YOSHIDA ET AL.

Examiner

DIEM TRAN

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 9 is/are rejected.
- 7) ☒ Claim(s) 5, 6 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

This office action is in response to the Request for Reconsideration filed on 5/15/09.
Overall, claims 1-9 are pending in this application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 7, 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Li et al. (US 6,938,412).

Regarding claims 1-3, 7, 9, Li discloses an exhaust purification device for an internal combustion engine having, a NO_x storing catalyst arranged in an engine exhaust passage, the NO_x storing catalyst being comprised of a precious metal catalyst and a NO_x absorbent and, when an air-fuel ratio of inflowing exhaust gas is lean, cold storing nitrogen dioxide NO₂ contained in the exhaust gas in the NO_x absorbent when not activated and hot storing cold stored nitrogen dioxide NO₂ in the NO_x absorbent when activated, said exhaust purification device for an internal combustion engine making the nitrogen dioxide NO₂ contained in the exhaust gas be cold stored in the NO_x absorbent in the state where said NO_x storing catalyst is not activated and executing a NO_x storing catalyst restoring control including at least raising the temperature of said NO_x storing catalyst to a predetermined temperature to activate it when a predetermined

NO_x storing catalyst restoring condition is met so as to restore the cold storing capability of said NO_x absorbent in the state where said NO_x storing catalyst is not activated (see col. 2, lines 26-37, col. 5, lines 15+).

Regarding claim 4, Li further discloses that said device has a NO₂ stored amount estimating means for estimating an amount of nitrogen dioxide NO₂ cold stored in said NO_x absorbent and a NO_x storable amount estimating means for estimating an amount of nitrogen oxides NO_x able to be stored in said NO_x absorbent when said NO_x storing catalyst is at said predetermined temperature and said NO_x storing catalyst restoring condition is deemed to be met when the NO₂ stored amount estimated by said NO₂ stored amount estimating means becomes greater than or equal to a predetermined amount set to not more than said NO_x storable amount based on the NO_x storable amount estimated by said NO_x storable amount estimating means (see col. 5, lines 15+).

Allowable Subject Matter

Claims 5, 6, 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed on 5/15/09 have been fully considered but they are not deemed persuasive. Applicant has argued that Li merely teaches two lean NO_x traps, and that the apparatus of Li combines a close-coupled cold start LNT (11) (lean NO_x trap) with a main LNT (12) (lean NO_x trap) (see col. 3, lines 62-64 of Li) instead of a single NO_x storing catalyst as claimed in claims 1 and 9. The examiner respectfully disagrees, since a lean NO_x trap (11) in

Li is used as a single NO_x storing catalyst as claimed in claims 1 and 9, therefore, Li discloses the claimed limitations in dispute.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (571) 272-4866. The examiner can normally be reached on Monday -Friday from 8:00 a.m.- 5:30p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (571) 272-4859. The fax number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for

Art Unit: 3748

unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 800-786-9199 (toll-free).

/Diem Tran/
Patent Examiner

/Thomas E. Denion/
Supervisory Patent Examiner, Art Unit 3748